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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,129	03/29/2004	David G. Whitten	8971-039-27- DIV	2489

7590

07/25/2005

Supervisor, Patent Prosecution Services  
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Washington, DC 20036-2412

EXAMINER

COUNTS, GARY W

ART UNIT	PAPER NUMBER
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1641

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/811,129

Applicant(s)

WHITTEN ET AL.

Examiner

Gary W. Counts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-41 is/are pending in the application.
- 4a) Of the above claim(s) 19-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 38-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05/15/05.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Status of the claims**

The amendment filed May 16, 2005 is acknowledged and has been entered.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 38-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Coull et al (6,355,421).

Coull et al disclose compositions and kits comprising PNA (peptide nucleic acid) Molecular probes. Coull et al disclose that the PNA probes comprise a probing segment (recognition element) which is designed to hybridize (bind) to a portion of a target sequence (target biological agent) (col 8, Fig. 11). Coull et al disclose the probing segment (recognition element) comprises a linker (tether) (col 15, Fig. 11) and a quencher (property-altering element).

With respect to the recitation "amplified superquenching" as recited in the instant claims. Since Coull et al disclose all the elements of the recited compound and applicant has not recited any structural differences than that of Coull et al. The

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compositions of Coull et al would be capable of amplified superquenching . Therefore, Coull et al anticipates the claims.

With respect to the fluorescent polymer recited in claim 40. Coull et al discloses that the composition can further bind with a linked fluorophore comprising 2 or more units which is a polymer. Coull et al further teaches that the fluorophore can be a dye such as Cy3 (dye comprising a series of conjugated double bonds having two quaternary nitrogen atoms at the terminal ends which share one positive charge). Therefore, Coull et al disclose a fluorescent polymer which is capable of binding the to the above stated composition. Therefore, Coull et al anticipates the claims.

### ***Response to Arguments***

3. Applicant's arguments filed May 16, 2005 have been fully considered but they are not persuasive.

Applicant argues that the Official Action has pointed to no teaching or suggestion in Coull et al of a compound as set forth in Claim 38 comprising a "property-altering element capable of amplified superquenching of a fluorescent polymer when associated therewith". Applicant further argues that the Official Action states that Coull et al "disclose all the element of the recited compound and applicant has not recited any structural differences". Applicant states that an applicant may use "functional language"... or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought (MPEP 2173.01). This is not found persuasive because a functional limitation is an attempt to define something by what it does, rather than by what it is, and as stated in the previous office action

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Coull et al disclose all the elements recited in the claim and therefore would be capable of amplified superquenching. Further, a recitation of intended use of the claimed invention must result in structural difference between the patentably claimed invention and the prior art in order to distinguish the claimed invention from the prior art.

Therefore, it is an inherent property that the composition taught by Coull et al would be capable of amplified superquenching because Coull et al meets all the limitations of the claim.

Applicant argues that claims 40 and 41 can be distinguished from Coull et al. Applicant argues that claims 40 and 41 recite "a fluorescent polymer" and that the Official Action is relying upon the disclosure in Coull et al of Cy3 dye and that Cy3 is not a polymer. This is not found persuasive because the Examiner has not relied solely on the Cy3 dye, but as stated in the previous office action "Coull et al discloses that the composition can further bind with a linked fluorophore comprising 2 or more units which is a polymer". The Cy3 dye of Coull et al is conjugated with an arm segment which is comprised of subunits of PNA (which Coull et al defines as a linked polymer comprising two or more PNA subunits) (col 11). Coull et al further teaches that the arm segments can comprise 6 or more subunits (col 7-8). Therefore, Coull et al teaches a fluorescent polymer.

### ***Conclusion***

4. No claims are allowed.
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary W. Counts whose telephone number is (571) 2720817. The examiner can normally be reached on M-F 8:00 - 4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Gary Counts

Examiner

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July 8, 2005



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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

07/21/05